

04-Ala-580, 680, 880
Various locations
Program Code: 201.235
EA 3G710K
September 2011

Request Programming in 2012 SHOPP

PROJECT LOCATION: In Alameda County on Routes 580, 680, and 880 at Various Locations

APPROVAL RECOMMENDED:

Jeanne Gorham 9-15-11
JEANNE GORHAM, DISTRICT PROGRAM MANAGER

APPROVAL RECOMMENDED:

Lawrence A. Jones
LAWRENCE A. JONES, PROJECT MANAGER

APPROVED:

Biyan Sartipi
BIJAN SARTIPI, DISTRICT DIRECTOR

9-15-11
DATE

This Project Initiation Document has been prepared under the direction of the following licensed landscape architect. The licensed landscape architect attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based.

Martin A. Hogan
LICENSED LANDSCAPE ARCHITECT

9/15/2011
DATE



1. Initiating Office/Initiator:

The District 4 Program Manager for the Roadside Safety Improvement Program has established that a roadside safety project is needed along Route 580 between PM R32.9 and 46.5, Route 680 between PM 3.2 and 3.8, and Route 880 between PM 3.2 and 27.1 that meets the qualification for the 201.235 Program.

This Small Capital Value Project (SCVP) project initiation document (PID) provides conceptual approval of the proposal and a recommendation to program the project into the 2012 State Highway Operation and Protection Program (SHOPP.) A project report will serve as final approval of the proposal.

2. Purpose and Need:

Purpose:

The purpose of the 20.XX.201.235 - ROADSIDE SAFETY IMPROVEMENTS Program is to minimize the frequency and duration of highway worker exposure to traffic by providing safe access to work areas and by providing features to reduce repetitive maintenance activities. The program originated as the result of annual Caltrans statewide stand-down meetings to improve safety for Caltrans employees as well as the travelling public. The program provides off pavement access areas that can be used by highway workers for landscape/electrical maintenance; litter pickup crews; the motoring public for emergencies; and the California Highway Patrol for traffic control. Safety improvement measures under this program also include relocating existing roadside facilities to safe work locations away from the travelled way; paving extended gore areas, narrow areas, and some slopes adjacent to bridge structures; providing vegetation control treatments under existing guardrail, in low visibility areas and along the road edge;

Need:

Installation of roadside safety improvements such as gore area paving, maintenance vehicle pullouts (MVPs,) and access gates, will decrease worker exposure. Currently, the maintenance of the unpaved gore areas must be performed manually, requiring daytime lane closures exposing maintenance workers to high speed traffic on the heavily congested routes in the San Francisco Bay Area. In areas lacking adequately located MVPs or access gates, often maintenance vehicles are forced to use the shoulders or other less desirable areas to park in order to be in the vicinity of the work.

The Department's Maintenance work force has declined in size over time, resulting in

responsibility for more lane miles and acreage of right of way per person for fewer staff crews. At the same time, Department policies to reduce herbicide applications Statewide mean that other measures are needed to control weeds or other out-of-place vegetation on the roadside or road edge.

3. Deficiency Summary:

There is existing risks associated with worker exposure to traffic as determined by frequency and duration of exposure, variety of maintenance crews in area. These risks can be decreased with installation of roadside safety improvements.

4. Project Proposal:

District Maintenance has identified the following locations in need of roadside safety improvements within Alameda County. On Route 580, there are two areas in need of maintenance vehicle pullouts. On Route 680, there is a narrow unpaved strip along a sound wall that should be paved. On Route 880, there are 17 gore locations identified as needing to be paved within the project post-miles. This project proposes to install maintenance vehicle pullouts to increase worker safety. This project also proposes to pave gore and other narrow dirt areas to prevent weed growth and enable mechanical sweeping, thus decreasing worker exposure while increasing public safety. Since the hydrology will be affected by the paving, the need for drainage modifications will have to be addressed.

In the course of investigation during the PA&ED phase, there may other locations identified as needing gore paving, maintenance vehicle pullouts (MVPs) or access gates.

R/W: All construction work including traffic control operations is anticipated to be performed within the State Right of Way. A Right of Way data sheet will be included in PA&ED phase.

Hazardous Waste: Hazardous material investigation and recommendations will be performed during the PA&ED and PS&E phases.

Stormwater: This project has anticipated soil disturbance, temporary water quality impacts resulting from the construction activities in this project will be addressed at PA&ED phase. A Storm Water Data Report (SWDR) will be included in PA&ED phase.

Hydraulics: The existing water flow lines will be affected by the gore paving. District

Hydraulics will need to investigate and provide recommendations for drainage modifications during the PA&ED and PS&E phases.

Environmental: This project is expected to have no economic, social or environmental impacts, and a Categorical Exemption is the anticipated environmental clearance document. Environmental analysis will performed during the PA&ED phase.

5. Programming

PROJECT CAPITAL COST		
Fiscal Year	Right of Way Capital	Construction Capital
FY 11-12		\$1,946,400
FY12-13		\$2,027,500
FY13-14	\$5,000	\$2,112,000
FY14-15		\$2,200,000

Key assumptions for the cost estimate:

- 4% annual escalation
- Excavated soil is ADL contaminated

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	.08		1.2		0.2		1.7		3.9
Project Support in dollars (\$K)	150		220		30		300		700

Key assumptions for support cost estimate.

- Support Cost is 32% of Capital Cost
- \$105/hr
- \$180,000 per PY

6. Schedule:

HQ Milestones	Delivery Date (Month, Day, Year)
PA & ED	09/31/2013
Regular Right of Way	10/31/2014
Project PS&E	10/31/2014
Right of Way Certification	12/31/2014
Ready to List	12/31/2014
Approve Contract	5/31/2015
Contract Acceptance	3/31/2016
End Project	8/31/2016

Key assumptions for the schedule.

9 months for PS&E

160 Working days

Vote by 2/28/2015, Adv. By 3/30/2015

No environmental schedule constraints

7. Attachments:

- A. Project Location Map
- B. Project Location List
- C. Preliminary Project Cost Estimate

PRELIMINARY COST ESTIMATE

<u>Access Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Access Gates - Personnel	_____	_____	_____
(B) Access Gates - Equipment	_____	_____	_____
(C) Light Duty Access Trails	_____	_____	_____
(a) All Weather Surface	_____	_____	_____
(b) Graded Surface	_____	_____	_____
(#) _____	_____	_____	_____
(D) Shoulder Widening/Turnouts**	_____	_____	_____
(a) Paved Surface	_____	_____	_____
(b) All Weather Surface	_____	_____	_____
(c) Graded Surface	_____	_____	_____
(#) _____	_____	_____	_____
(E) Staircases	_____	_____	_____
(F) Maintenance Vehicle Pullout	Yes	2 (EA)	\$77,200
	_____	_____	_____

COSTS SUBTOTAL

\$77,200

<u>Vegetation Control Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Vegetation control under Metal Beam Guard Rail	_____	_____	_____
(B) Vegetation control under Thrie Beam Barrier	_____	_____	_____
(C) Vegetation control around sign posts	_____	_____	_____
(D) Paving narrow areas	Yes	51,600	\$531,480
(E) Paving areas beyond the gore	_____	(SF)	_____
Item#190101, 250401,390102	_____	_____	_____
COST SUBTOTALS	_____	_____	<u>\$531,480</u>

<u>Facility Relocation Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Pull boxes	_____	_____	_____
(B) Irrigation valve boxes	_____	_____	_____
(C) Backflow preventer assemblies	_____	_____	_____
(D) Electrical control boxes	_____	_____	_____
(E) Traffic control boxes	_____	_____	_____
(F) Irrigation control boxes	_____	_____	_____
Maintain Existing Irrigation Facilities	Yes	(LS)	\$10,000
COST SUBTOTALS	_____	_____	<u>\$10,000</u>

Additional Work		Yes/No	Quantity (unit)	*Cost
(A)	Traffic Control	<u>Yes</u>	<u>(LS)</u>	<u>\$210,000</u>
(B)	Earthwork***	<u>Yes</u>	<u>51,600</u> <u>(SF)</u>	<u>\$572,760</u>
(C)	Pavement***** (See Paving areas beyond the gore)	<u> </u>	<u> </u>	<u> </u>
(D)	Clearing and Grubbing	<u>Yes</u>	<u>(LS)</u>	<u>\$15,400</u>
(E)	Other Landscape Related Work# (List type of work)	<u> </u>	<u> </u>	<u> </u>
	Vegetation Control	<u> </u>	<u> </u>	<u> </u>
	Erosion Control	<u>Yes</u>	<u>(LS)</u>	<u>\$ 61,500</u>
	Water Quality Control	<u>Yes</u>	<u>(LS)</u>	<u>\$ 40,000</u>
	Remove Tree	<u>Yes</u>	<u>(LS)</u>	<u>\$ 8,000</u>
(F)	Guardrail (include remove and replace)	<u> </u>	<u> </u>	<u> </u>
	(a) Metal Beam	<u> </u>	<u> </u>	<u> </u>
	(b) Concrete	<u> </u>	<u> </u>	<u> </u>
	(c) Bridge Approach	<u> </u>	<u> </u>	<u> </u>
	(#) <u> </u>	<u> </u>	<u> </u>	<u> </u>
(G)	Drainage Adjustment and Rehabilitation# (List type of work)	<u>Yes</u>	<u>(LS)</u>	<u>\$110,000</u>
(H)	Retaining Walls	<u> </u>	<u> </u>	<u> </u>
(I)	State Utility Box Relocation	<u>YES</u>	<u>18 EA</u>	<u>\$10,000</u>
COST SUBTOTALS				<u>\$1,030,660</u>
SUM OF SUBTOTALS				<u>\$1,649,340</u>
25% Contingency				<u>\$550,000</u>
TOTAL PROJECT COST				<u>\$2,199,340</u>
Say				<u>\$2,200,000</u>

Note: * If duplicated in other items, show cost in parenthesis.
** Include cost of shoulder backing material, as needed.
*** Earthwork other than that required for grading turnouts or access trails.

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**** Pavement work other than that required for the Access or Vegetation Control work.
Add Additional lines as necessary. Do not include support costs.

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Right of Way Items

B. Utility Relocation (State Share) \$5,000 (to be used for potholing)

REVISED ALAMEDA COUNTY BY PRIORITY					SCOPE OF WORK			9/15/2011
No.	County	Route	PM	Location				Area/SF
1	Ala	238/880	16.5	WB 238 TO NB 880 RAMP GORE				1,800
2	Ala	880	20.4	NB 880 ON FROM LEWELLING TRIANGLE				150
6	Ala	880	25.4	NB 880 HEGENBERGER/EDES ON/OFF				3,400
7	Ala	880	27.1	NB 880/SB 880 66TH AVE ON/OFF				7,000
8	Ala	880	20.4	SB 880 ON GRANT/HESPERIAN				450
9	Ala	880	18.2	SB 880 ON 'A' STREET OFF				500
10	Ala	880	14.5	SB 880 OFF-INDUSTRIAL TRIANGLE ISLAND				1,000
12	Ala	880	13	SB 880 ON/ON ALVARADO NILES				3,000
13	Ala	880	10.5	SB 880 OFF/ON NB ON/OFF DECOTO				11,400
16	Ala	880	4.5	OFF/ON/OFF AUTO MALL		NB		3,900
17	Ala	880	3.2	NB 880 OFF/ON/ON FREMONT CUSHING				3,400
18	Ala	680	3.2-3.8	NB 680 GRIMMER-DURHAM SW STRIP				15,600
19	Ala	580	39.7	MVP WB				1,020
20	Ala	580	42.8	MVP WB				1,020
							TOTAL	53,640

MVP PM 42.8

MVP PM 39.7



PM 3.3 TO PM 3.8

GRIMMER TO DURHAM

BEGIN PM 3.2

FREMONT/CUSHING

END PM 27.1

66 TH AVE.